

इंटरनेट

मानक

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Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

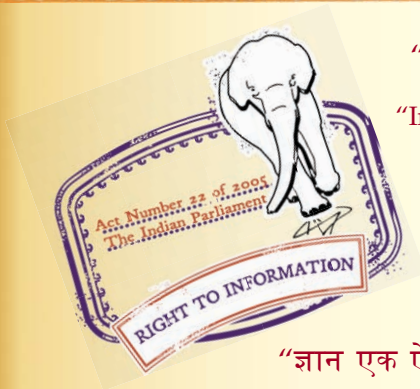
“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 8461 (1987): Cane Knives [FAD 2: Sugar Industry]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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Indian Standard

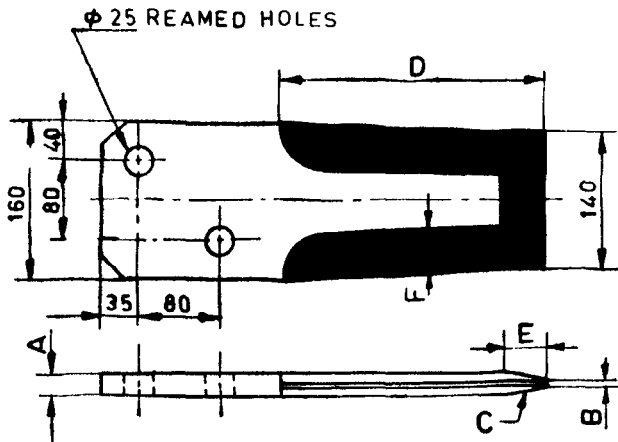
SPECIFICATION FOR
CANE KNIVES
(First Revision)

1. **Scope** — Specifies materials, dimensions and other requirements for double-edged cane knives, bolt type or boltless type used in cane milling plants.
2. **Grades** — There shall be two grades of cane knives depending upon the material of construction, Grade 1 and Grade 2.
3. **Materials**
- 3.1 **Grade 1 Knife** — Any of the following materials may be used for the manufacture of Grade 1 knife:

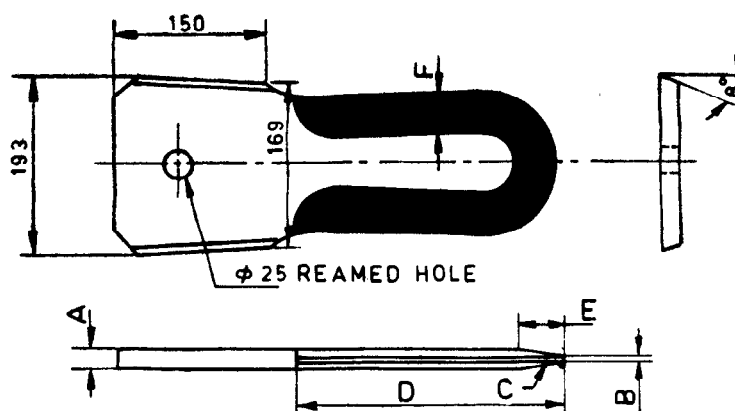
a) Chromium vanadium steel conforming to Grade 50Cr4V2 of IS : 4367-1967 'Specification for alloy and tool steel forgings for general industrial use',

b) Manganese vanadium high strength weldable alloy steel, or

c) Silicon manganese steel conforming to Grade 55Si7 of IS : 3431-1982 'Specification for steel for manufacture of volute, helical and laminated springs for automotive suspension (second revision)'.
- 3.2 **Grade 2 Knife** — Grade 2 knife shall be made of steel conforming to grade Fe410-S of IS : 226-1975 'Specification for structural steel (standard quality) (fifth revision)', or to Grade Fe410WA or Fe410WB of IS : 2062-1984 'Specification for weldable structural steel (third revision)'.
4. **Hardness** — After hard-facing, the knife shall be stress relieved, maintaining the hardness of 45 to 48 HRC in the cutting edge when tested in accordance with IS : 1586-1960 'Method for Rockwell hardness test (B and C scales) for steel (first revision)'.
5. **Shapes** — Typical shapes of the cane knives are given in Fig. 1 and 2.



All dimensions in millimetres.
FIG. 1 TYPICAL DESIGN OF BOLT TYPE CANE KNIFE



All dimensions in millimetres.

FIG. 2 TYPICAL DESIGN OF BOLTLESS CANE KNIFE

6. Dimensions — The dimensions when read in conjunction with Fig. 1 and 2, shall be as given in Table 1.

TABLE 1 DIMENSIONS FOR CANE KNIVES

All dimensions in millimetres.

Dia of Knife Tips	Length of Knife	Thickness of Knife		Thickness of Cutting Edge	Thickness of Hard Faced Portion, Min	Length of Projected Cutting Edge	Width of Hard Faced Portion	Taper, Min
		Grade 1	Grade 2					
		(A)	(A)	(B)	(C)	(D)	(E)	(F)
1 400	450	16	20	0.5	2.5	270	40 to 45	40
1 500	500	16	20	0.5	2.5	270	40 to 45	40
1 600	550	20	25	0.5	2.5	270	40 to 45	40

Note — Suitable tolerances shall be as recommended in IS : 1852-1985 'Rolling and cutting tolerances for hot rolled steel products (fourth revision)'.

7. Other Requirements

7.1 The knife shall be suitably secured to the hub (see IS : 11238-1985 'Specification for hubs for cane knives') mounted on the shaft. In case the knife is not tenoned to the hub, the holes should be rimmed for fitted bolts.

7.2 All fitting portions of the knife shall be suitably machined and ground.

7.3 The knife shall be suitably hard faced.

7.4 After heat treatment the knives shall be cleaned and polished.

7.5 The knives shall be free from flaws, seams, scratches, cracks, pits and other defects. All fines, burrs, flashes and sharp edges, other than the cutting edge, shall be removed.

8. Marking — The knife shall be marked with the following particulars:

- Manufacturer's name or recognized trade-mark,
- Code number, and
- Grade of the knife.

8.1 Standard Marking — Details available with the Bureau of Indian Standards.

9. Packing — As agreed to between the purchaser and the supplier.

10. Sampling for Lot Acceptance — As agreed to between the purchaser and the supplier.